

## PATENT ABSTRACTS OF JAPAN

(11)Publication number : 03-220725

(43)Date of publication of application : 27.09.1991

(51)Int.Cl.

H01L 21/3205  
H01L 21/90

(21)Application number : 02-016830

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(22)Date of filing : 25.01.1990

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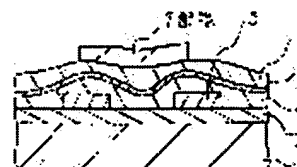
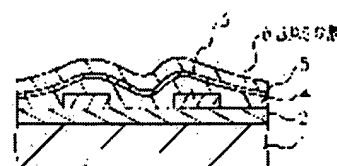
## (54) SEMICONDUCTOR DEVICE

## (57)Abstract:

PURPOSE: To contrive planarization of a layer insulating film by providing a first insulating film having a larger reflow capacity so as to reflow and depositing a second insulating film having a smaller reflow capacity and a third insulating film having a large reflow capacity consecutively on the surface of the first insulating film.

CONSTITUTION: A field oxide film 2 is provided on a silicon substrate 1. A lower layer wiring 3 is selectively installed thereon. A BPSG(boron phosphosilicate glass) film 4 is deposited on these surfaces based on the CVD process and heat-treated in a nitrogen-ambient atmosphere. Then, an oxidizing silicon film is deposited and a BPSG film 6 is further deposited after the BPSG film is coated. Under the nitrogen ambient atmosphere,

reflow processing is carried out so as to make smooth the surface. At that time, the oxidizing silicon film 5 works so as to inhibit the fluidity of the BPSG film 4. Furthermore, the offset on the surface is reduced so that tensile force may be relieved on the surface of the BPSG film at the projected parts. It is, therefore, possible to further flatten the surface of the layer insulating film.



## LEGAL STATUS

[Date of request for examination]